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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,603	03/17/2004	Kazuo Motouchi	33959Wx0021	4184

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EXAMINER

ROMAN, LUIS ENRIQUE

ART UNIT PAPER NUMBER

2836

DATE MAILED: 08/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/801,603	MOTOUCHI, KAZUO	
	Examiner	Art Unit	
	Luis Roman	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 5-7 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5, 7 and 13-17 is/are allowed.
- 6) ☒ Claim(s) 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

Applicant amendment filed on 06/02/06 has been entered. Accordingly claim 7 has been kept original, claims 5 & 6 have been amended and claims 13-17 have been previously presented. No new claims were added. It also included amendments to the specification along with remarks/arguments.

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. §103(a), which forms the basis for all obviousness rejections, set forth in this Office action:

a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

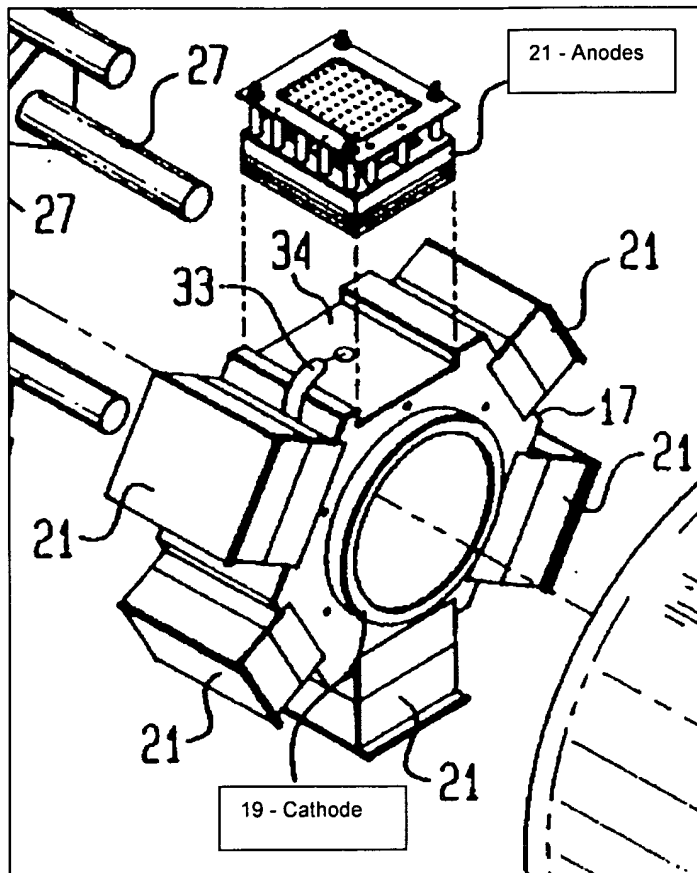
**Claim 6** is rejected under 35 U.S.C. §103(a) as being unpatentable over by Motouchi (US 5977716) in view of Kaizer (US SIR H286).

Regarding claim 6 Motouchi discloses an ion generator comprising: a casing having an intake port and an exhaust port (Col. 6 lines 58-60); an ionization electrode (Fig. 1 element 32) contained in said casing (Fig. 1 element 1) and a high-voltage generator for applying a high voltage to said ionization electrode (Col. 4 lines 56-59 & Fig. 1 element 2).

Motouchi does not specifically disclose including a first plate-like pole having a discharge surface defined by a cylinder or a part thereof and its generatrix extended in parallel with the pointed ends of the first pole; wherein said first poles are disposed at plural places arranged peripherally of said second pole as presenting their respective flat surfaces to a peripheral surface of the second pole.

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Kaplan teaches including a first plate-like pole having a discharge surface defined by a cylinder or a part thereof and its generatrix extended in parallel with the pointed ends of the first pole; wherein said first poles are disposed at plural places arranged peripherally of said second pole as presenting their respective flat surfaces to a peripheral surface of the second pole (Fig. 1 elements 19 & 21<see detail below>).



### Allowable Subject Matter

#### Claims 5, 7, 13, 14, 15, 16 & 17:

The following is a statement of reasons for the indication of allowable subject matter:

The best references found were Motouchi (US 5977716) and Kaplan (US SIR H286).

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Motouchi discloses an ion generator but not with the exact claimed configuration of poles and its parts.

Motouchi discloses also the sawtooth-like pointed ends arranged linearly (Figs. 6, 7 element 32).

Kauter discloses a corona discharge surface treating method with a similar casing and with an intake and exhaust.

Kauter further discloses a cylindrical inner electrode (Fig. 1 element 19) and the plate-like poles place around the cylindrical one (Fig. 1 elements 21).

Neither Motouchi nor Kauter discloses the first pole pointed ends extending in a direction away from the second pole and not toward it.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luis E. Román whose telephone number is (571) 272 – 5527. The examiner can normally be reached on Mon – Fri from 7:15 AM to 3:45 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571) 272-2800 x 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from Patent Application Information Retrieval (PAIR) system.

Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LR/080806

Luis E. Román  
Patent Examiner  
Art Unit 2836



BRIAN SIRCUS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800